ISMA⁶

The 6th Annual International Software Measurement and Analysis (ISMA) conference, held this year in Richmond, Virginia, brought the event back to North America. IFPUG continued the tradition of providing cutting edge methodology and a platform for IT professionals throughout the world. Read more inside.

SNAP!!

The ITPC and the SNAP Team have released the first version of Software Non-functional Assessment Practices (SNAP) Assessment Practices Manual (APM). The manual was presented and officially made available at the Richmond ISMA Conference.

SNAP represents an interesting and radical approach to estimation. Rather than simply establishing the functional size of software and using typical productivity for that technical environment, SNAP seeks to establish an objective method to size all technical requirements and to use that to develop effort estimates which can fully represent activities and deliverables of all types.

The IT Performance Committee reports on this initiative and asks for your feedback – see inside.

Metrics for Management

One key challenge most organizations face when they start to measure and report performance is how to report measures of productivity achieved – and how to ensure that the right message is received.

Effective communication is more than just presenting numbers. In this issue of MetricsViews, Robyn Lawrie of CHARISMATEK Software Metrics shows a proven and effective method of getting the right message across to time-poor and attention-lite management.

Function Point Analysis Issues

IFPUG rules depend greatly on sensible and consistent interpretation – and application boundary setting is of prime importance. What should be a simple matter based on the purpose of the count is sometimes confused by other issues. In this issue, Ram Kumar Venkatamaran (Accenture) provides us with some of his guidelines and examples he uses to assist in identifying boundaries in a practical sense. Please Note: IFPUG presents such discussions as points of view for discussion, not as approved IFPUG practices.

Do you have an opinion on this or any other article in MetricsViews?

We would like to hear from you – this is your forum.

IT’S ALL IN THIS ISSUE OF MetricViews!
New Board

November 1st was the effective date for commencement of duty for three new Board members. Christine Green, Lori Holmes, and Debra Maschino were selected by our members to join the IFPUG Board in the recent election. I look forward to working with each of these incoming and talented Board members to improve the “member experience” within IFPUG. At the same time the Board says thank you, but not goodbye, to three gentlemen that have a combined experience of about 20 years. Márcio Silviera, Chris Kontz, and Tom Cagley have provided the IFPUG Board of Directors with years of insight, sweat equity, and value. Many thanks to each of them, and to Bruce Rogora as well for his ongoing mentorship role with the Board as he assumes the position of Immediate Past President.

New Priorities

When the Board convened in September we agreed to establish priorities for the near future. These priorities included IFPUG website capabilities, information management, international presence, and others. As an immediate result, we are already in the process of licensing, migrating toward, and implementing a data management application known as Avectra. This “tool” will enable three key capabilities essential to the business of managing IFPUG membership services and facilitating IFPUG activities and information distribution.

New Website Member Services

Three capabilities that you will notice by next spring are:

- access to personal membership data – Avectra will allow you to maintain your own membership data, to view membership status, to view your certification information, to access or acquire products, and to register for IFPUG-sponsored events
- shared workspaces – IFPUG Committees will have shared workspaces within the IFPUG website umbrella to facilitate sharing and communication of intellectual assets and work products
- accuracy and timeliness – members will “own” their membership and registration information eliminating delays and inconsistencies with many updates and the current status of your transactions. In addition, “instant” query access will allow you to track and verify certification data.

Like most organizations, our opportunities exceed our resources. Defining and building a bigger and better IFPUG website requires people resources – IFPUG volunteers - and money. Consequently, we can’t do everything - but we reject that as an excuse for not doing something. We expect the Avectra implementation to mitigate many of our website issues. The next step will be to refresh the remaining website features such that our “front door” is both functional and appealing.

I invite you to help us create our future, innovate our products and our services, and expand our membership base and value. Our volunteers are our people resources and the engine of IFPUG – become a part of that group and help drive IFPUG forward.

Thanks to all of you that make IFPUG what it is today and what it can be tomorrow,

Joe Schofield
IFPUG President

CURRENT CONTACT INFORMATION?

To ensure you do not miss any IFPUG communications, please notify the IFPUG Office immediately of any changes to your e-mail or postal address. You may do so in one of the following ways:

E-mail to ifpug@ifpug.org, call 609/799-4900, fax 609/799-7032
Write to: IFPUG, 191 Clarksville Road, Princeton Junction, NJ 08550
In this issue, we yet again say farewell to another champion of IT Metrics. Grant Rule was an inspiration to many in this field and his ability to integrate a wide range of knowledge will be sorely missed.

But our opportunities to discuss and share ideas and concepts in software measurement continue to grow within IFPUG. MetricsViews is a key part of keeping membership up to date with the latest information on IFPUG activities – but it is also a source of ideas and a place to share. Not only are we looking to publish more of what you think and what you are doing but we also are keen to generate discussion – in-depth discussion that enables issues to be highlighted and leads us forward in the use of functional sizing and metrics in general. The Boundary discussion in this edition is sure to provoke some comments.

However, it is the lack of understanding and inability to effectively and easily apply metrics based information that ensures the world of IT Metrics remains still seated on the kerb when the bus is leaving. We cannot even tell anybody what a “good” productivity figure is without a range of follow-up questions and caveats. Robyn Lawrie demonstrates a communication method that provides the simple “good/bad” information but is derived from all the complex factors that go to impact productivity.

**What do you see as the key issues impacting IFPUG and IT Metrics into the future?**

**How do you see the problems and the solutions?**

Tell us at cmc@ifpug.org.

Paul Radford
Communications & Marketing
ISMA⁶ Conference in Richmond

By Terry Vogt, Conference Committee Chair

The 6th Annual International Software Measurement and Analysis Conference was held this year in Richmond, Virginia on September 13 and 14 at the Greater Richmond Convention Center conference facility. Approximately 120 attendees gathered from around the world from locations including the U.S., Brazil, India, Japan, Canada, Germany and the U.K. Workshops were also held on September 11 and 12 at the conference site. ISMA⁶ provided new contacts, information and the Interest Group approach as parts of a successful experience for IFPUG, the speakers and attendees.

Day One
Kevin Aguanno opened the conference on Tuesday, September 13 with the keynote presentation entitled: “Improved Project Governance Using Agile and Measurement”. The vendor fair for ISMA⁶ exhibitors was provided at the close of the presentations on Day One. A reception and dinner with live music was held that evening at the Rhythm Hall in the Richmond CenterStage facility.

Day Two
On Wednesday, September 14, Christine Green of the IT Performance Committee updated the attendees on progress on the Software Non-functional Assessment Process with a presentation on Benchmarking using SNAP & FPA. That was followed by Dan Galorath’s keynote presentation: “Measurement, and Management and Business Value, Oh My!”

The IFPUG annual meeting was held at the close of Wednesday’s activities.

Variety of Presentation Topics
There were a total of twenty five track presentations provided on five tracks over the two day conference. Tracks covered Function Point Analysis, Estimation, Management, Metrics and Special Interests. Speakers from Brazil, India, Japan, Germany, Sweden, Canada, the U.K. and the U.S. provided presentations on a wide variety of software measurement topics. These included presentations on business, technical, and management topics involving measurement of software products and processes, quality, and risk. The complete collection of all presentations will be made available to IFPUG members through the Members Only section of the website beginning approximately 6 months after the conference. Notification and directions will be sent to the membership when this material is ready for access.

Interest Groups
A new feature at this year’s conference was the addition of Interest Groups (IGs). The IGs were interactive sessions of attendees who were aided by a facilitator to discuss an issue relevant to software measurement and reach some agreement on possible actions and follow-up activities. The two IGs at ISMA⁶ addressed Agile and SOA software issues. Further action from these IGs will be publicized in future MetricsViews issues. The general reaction to these IGs was favorable and it is anticipated that more IGs will be conducted in future ISMA conferences.

ISMA 2012
Planning has begun for next year’s ISMA conference. Sites in North America and Europe were evaluated based on their attraction as a destination as well as the level of support available from IFPUG members to host the conference at those candidate locations. Phoenix, Arizona has been chosen as the location for ISMA⁷. More information will be released soon.

Many thanks and congratulations to all who participated!
Organisations use numbers or measures as a basis for day to day decision making in the management of their I.T. activity. These measures are intended to provide the objective information needed to make sensible fact-based business decisions.

Making sense of all this information, however, may sometimes offer a challenge.

Consider the following example, where I imagine myself as the manager of a group of teams developing software and have to collate figures for my productivity report.

Team A on Project A achieved a productivity rate of 7 hours per Function Point and Team B on Project B achieved 14 hours per Function Point. On the face of it, Team A seems to be doing much better than Team B, but I am aware that they work on different application areas and doing different types of work.

Can I really simply compare these numbers?

How do I report to my superiors what I don’t really understand? And how can I plan to improve when I don’t know where we are at?

Is this a familiar scenario, for you or someone you know?

Finding the Lemons

This is a short case study illustrating a method for reporting productivity in a way which goes a long way towards alleviating this problem.

This is the experience of a large finance organisation with a diverse and complex software environment. This organisation has been measuring the productivity of its development teams using function point based metrics for a number of years. Function Points are used to express the size of the Work Product delivered by a project and this is combined with Work Effort project hours as a measure of productivity. The productivity - Work Effort / Work Product - is expressed in Hours / Function Point.

Each year, productivity targets are set for each team. These targets are provided as part of an annual benchmark audit provided by our organisation. Each target is derived from comparative industry data so it is set in a realistic context. The targets consider the type of work done (e.g. development, simple enhancements, complex enhancements, and so on), the nature of the software application itself, the development platform plus a number of other variables. Thus, there can be more than one target for each team, depending on the type of work done and other variables. Importantly, each productivity target is custom tailored to the context.

At the end of each quarterly reporting period, a balanced scorecard is delivered by the Project Office to the organisation’s CIO. The Project Office wished to include the productivity rate achieved by each team as one of the reported KPIs.

However, the Project Office was reluctant to simply include the ‘raw’ metric on two counts:

- Firstly, almost certainly the response from many parties would be “what on earth is a Function Point?”
- Secondly, they were aware that the productivity rate cannot be taken simply on face value. However, they didn’t want to have to include long-winded explanatory notes to make the meaning clear.

The Project Office know that due to the relative complexities of different technologies and platforms and the nature of the applications themselves, one project’s productivity rate of 12 hours per function point may actually be a better achievement than the 6 hours per function point achieved by another.

The following chart provides a simple plot of the raw average productivity of projects delivered each month. This chart would appear to indicate that the best productivity was achieved in June and the worst – by a very small margin - was May.
**Normalised Productivity**

Our Productivity Index metric is a normalized productivity indicator for standard use across all the teams. This Index can be very quickly assessed and understood by senior management.

The Productivity Index reports software delivery productivity using a single index scale. Each data point represents a comparison of the target productivity against the productivity actually achieved. A value of 1 indicates that the target productivity was achieved.

The following chart is based on the same raw data as the previous chart.

![Productivity Index Chart](image)

**Figure 2 - May Looks Like a Bad Month**

However, the productivity reported is now normalised so the index value is simple to understand:

- An Index value of 1 is represented by the blue line. This indicates the target productivity. A point plotted on this line means that the target productivity has been achieved.
- A project is unlikely to deliver at exactly the Target productivity. Thus Productivity achieved is expected to show variation about the Target line.
- An Index value greater than 1 is described as above the line and indicates that the team is delivering at a better rate than the target. An Index value of 2, for example, would indicate that the team is delivering twice as fast as the target rate.
- An Index value less than 1 is below the line and indicates that the team is delivering at a poorer rate than the target.
- The Lower Bound red line indicates when to start further investigation. The Productivity achieved is not good enough. This Bound is decided through discussion.

The Productivity Index approach provides other benefits:

- It is an objective measure that can be calculated directly from the existing function point based metrics.
- It is an easy-to-calculate measure requiring only a couple of minutes of an analyst’s time. The necessary calculations are easily implemented in a spreadsheet.
- At the summary level, it can be implemented as a traffic light report making it particularly effective for inclusion in a high-level balanced-scorecard.
- By tracking Productivity Index scores over time, productivity trends can be identified and factors that lead to unexpectedly better or poorer productivity can be identified and investigated.

**Intuitive Productivity Reporting**

Our client has integrated the Productivity Index into their balanced-scorecard reporting and has now used it to successfully measure productivity and drive process improvement for the last five years. The CIO has on several occasions made direct reference to the productivity results demonstrated by the Productivity Index in her reports.

Since the Productivity Index is a simple concept, it is easy for new managers to adopt. No training is needed.

If you work in a diverse and complex software delivery environment and need a way to assess, report and compare your teams’ productivity in a manner that is easy and intuitive, consider implementing a simple metric like the Productivity Index to report what happens in your organisation.

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**About the Author:**

Ms Robyn Lawrie is a director and principal consultant for CHARISMATEK Software Metrics. She has more than forty years of IT Industry experience in software development across a wide range of applications and technologies. A major focus of her career has been on the improvement of the software process in general and, in particular, in the area of requirements analysis and early life cycle estimation.

Robyn is a regular speaker at various educational institutions and conferences including the Australian Conference on Software Measurement (ACOSM) and the International Software Measurement and Analysis Conference (ISMA).

Robyn is the subject matter expert and product manager for CHARISMATEK’s Function Point WORKBENCH™.

Robyn was first certified as an IFPUG Certified Function Point Specialist (CFPS) in 1998 – a process repeated many times. In the last 20 years, she has counted many tens of thousands of Function Points.
Committee Reports

Certification Committee
By Mike Ryan, Committee Member

Automated CFPS Exam

The success of the automated CFPS exam continues to grow. There are now hundreds more new Certified Function Point Specialists spread around the globe than would have been practicable with a manual system.

The Certification Committee’s once dreaded and tedious task of reviewing, marking and tallying results of our paper based exam is rapidly becoming a thing of the past, freeing up more time for us to sit back, relax and… take on offering even more language translations.

Did you know that no two running sessions of the automated exam contain the same set or sequence of exam questions? That’s because the Certification Committee has created hundreds of questions which are randomly offered during the automated exam. The wording and results for each question are carefully studied for consistency and variations across the offered language translations.

The CPM v4.3 update required the review and modification of each of the several hundred questions that comprise the exam question pool. A 4.3 compliant automated exam and resulting certification is now available in English and Portuguese. The Portuguese examination was updated in February, 2011. Work is currently underway to update the Italian translation to 4.3.

The Certification Committee continues to offer regional exams for those languages not served by the automated exam. The most recent example is a Japanese regional exam given on November 27th of this year.

The Certification Committee offers a special “Thank You” to the groups of volunteer translators and reviewers who have been called upon to perform these translations.

The internationally recognized IFPUG CFPS certification exam is offered worldwide through Prometric test centres. Visit the updated IFPUG-Prometric site for the locations, availability and registration - www.prometric.com/ifpug/.

Certification Extension Program

The Certification Committee also administers the Certification Extension Program (CEP) and has seen a record number of extensions applied to CFPS certifications around the globe. The CFPS Certification Extension Program (CEP) provides an alternative to the examination by allowing for the accumulation of qualifying credits toward the extension of a current CFPS designation.

Credits can be awarded for eligible activities such as: attending, teaching or authoring classes; attending or presenting at a conference; completing or validating function point counts; authoring papers and/or participating on IFPUG committees. Extend your certification by two or three years by submitting your CEP application before your current certification expires. The number of extensions an individual can obtain is limited only by the release of a major change in the Counting Practices Manual.

Detailed information about the CFPS Certification Extension Program, activity credit criteria, application, and necessary documentation can be found on the IFPUG website: www.ifpug.org/certification/certificationExtension.htm.

For more information on certification and the Certification Committee visit the IFPUG website: www.ifpug.org/certification/.

Communications and Marketing Committee
by Linda Hughes (Prior Chair) and Kim Ovuka (Vice-Chair)

The CMC had a very busy year providing communications and web updates for the ISMA® in Richmond, Va. This ISMA was a huge success and we continue to hear positive comments on the value of the conference.

Unexpected Challenges

In the immediate months leading up to the conference, the IFPUG websites’ web host filed for bankruptcy, leaving CMC with the challenge of quickly securing a new host to provide critical web support. During the transition process we were made aware that the IFPUG Bulletin Board functionality would no longer work and the company providing the bulletin board functionality was also out of business. The IFPUG site continues to provide the prior Bulletin Board posts but unfortunately no new discussions are possible at this time. The CMC is currently reviewing replacement alternatives.

New Website

For 2012, a website redesign and integrated tools will be one of our key objectives. Avectra is the new tool approved by the board to replace the current membership functionality. Once this tool is implemented, we will look to provide a new, improved IFPUG web site.

CMC Committee Changes

CMC thanks Mauricio Aguiar for all of his support as director during this challenging year. CMC welcomes our new director, Debbie Maschino, new chair, Melinda White as well as new committee members: Richard Russel, and Steve Neuendorf. We extend a huge “Thank You” to Kim Ovuka for her tireless efforts over the past two years.
Committee Reports

CMC – working for all IFPUG Members
CMC is available to provide communications to special interest groups and our entire IFPUG network. Committees and task groups can find the Web Update and E-blast Request forms on the CMC page: http://ifpug.org/about/marketing.htm. Please access the CMC page for the latest version of the form and complete the forms in their entirety.

We hope you enjoy this issue of MetricViews and find the committee updates valuable as well as the feature articles. If you are interested in providing a feature article for future MetricViews, please contact us at CMC@ifpug.org.

Counting Practices Committee
By Adri Timp, Chair

The Counting Practices Committee (CPC) has been working hard to deliver new value to the membership. The CPC has regular conference call meetings and had a face-to-face meeting during the ISMA Conference in Richmond, VA.

CPM 4.3 Class
Earlier this year, the CPC released the CPM 4.3 Update class on DVD. This course explains the changes made with version 4.3 of the IFPUG Counting Practices Manual and the rationale and significance of those changes. This course is eligible for Certification Extension Program (CEP) credits and is available for purchase on the IFPUG web-site (see Publications and Products). After you’ve completed the class, contact IFPUG (ifpug@ifpug.org) to have your certification upgraded from CPM 4.2 to CPM 4.3. The CPC has received very positive feedback on this class.

Counting Issues
On a regular basis, questions and suggestions about data shared between two applications have been discussed on the IFPUG Bulletin Board. Based on the frequency of questions on this topic, we realize that it is an important topic and that guidance was needed. For this reason, the CPC included an entire chapter on this subject in the Counting Practices Manual (Chapter 3 in Part 3 – Counting Practices). During the past year the CPC has developed several additional shared data scenarios. The new scenarios have been merged with the existing scenarios into a new white paper. The final review on this white paper was performed during the face-to-face meeting.
of the CPC. The white paper will be released very soon and will be available from the IFPUG web-site. When a new version of the CPM is released, this white paper will replace the current chapter three.

Case Studies
The CPC is also working on an update of Case Study 1. Case Study 1 illustrates applying the IFPUG FPA method to size a Human Resources application. Users of this case study have indicated that these are a valuable resource, especially to new users of the IFPUG FPA method. Our work on Case Study 1 includes updating the rule boxes to be consistent with CPM 4.3, including verifying and clarifying all explanations. In addition, we are redesigning the screens and clarifying to reflect the current state of technology and provide a more professional appearance.

iTips – simple guidance
The CPC monitors the threads on the IFPUG bulletin board on a continuous basis and when necessary provides an explanation of its point of view on the specific topic. Feedback from Bulletin Board users have indicated that these posts from the CPC are highly appreciated. Taking that practice to the next level, the CPC has proposed a new work product – iTips. An iTip is intended to provide the guidance of the CPC on topics important to all people that apply FPA. An iTip will consist of only a few pages of practical, easy-to-use information. An iTip will focus on one specific topic and explain it in easy-to-understand language. The CPC has written its first iTip and presented it to the IFPUG Board. The board agreed the iTips concept will provide value to the FPA community and our first iTip will be released on the website very soon.

If you are not already on the IFPUG email list, please join by sending an email to ifpug@ifpug.org. This will ensure that you have the latest IFPUG news and stay abreast of activities within IFPUG.

International Standards (ISO) IFPUG Committee
By Carol Dekkers, Committee Member

The ISO Standards suite related directly to function points (referred to as “Functional Size Measurement” in the ISO community) has stabilized! This is a positive situation for IFPUG and the four other measurement standards (NESMA, Mark II, FiSMA, and COSMIC) because stability in standardization can lead to greater overall adoption in the information technology (IT) community.

Over the past 20+ years of creating function point related standards (within the IT measurement community), a common obstacle to the adoption of function points has been the lack of consistent and unchanging standards. When companies looked to adopt a function point standard within the United States or internationally, there were questions about the stability of the “current” release and whether “it would be better to wait for a new release.” In my humble opinion, that time has passed and the time has come for widespread adoption of function points! Our current method, IFPUG 4.3, in particular, is stable and highly usable. Not only is IFPUG 4.3 now an international ISO standard (known as ISO/IEC 20926 IFPUG Functional Size Measurement Method 2009), it is freely available to all IFPUG members.

Current ISO standards “maintenance”
As a reminder to IFPUG readers, the “6 part series” of function point standards is known as the ISO/IEC 14143 Software and systems engineering – Software measurement – Functional Size Measurement standards. Each part is a standalone standard and requires periodic maintenance by the ISO designated working group (ISO/IEC JTC1 SC7 WG6) according to the ISO 3 to 5 year schedule. Part 1 of the suite (14143-1 Concepts and definitions) was republished in 2011 to coincide with the updated release of Part 2 (14143-2 Conformity Assessment) and to introduce the mandatory provision that all future functional size measurement methods considered by ISO must be accompanied by a conformity assessment report.

Part 6 of the 14143 series (Guide for use of ISO/IEC 14143 series and related international standards) is currently undergoing an update to incorporate the inclusion of the Finnish function point method: FiSMA 1.1 (ISO/IEC 29116) which became an international standard in 2010. Carol Dekkers is the co-editor of this standard update.

Benchmarking standards work
Ongoing development of the Project performance benchmarking standards suite (ISO/IEC 29155) is proceeding according to the ISO schedule. The initial framework standard (ISO/IEC 29155-1) is now at the DIS (draft international standard) publication stage and will be published in early 2012 and

Education Committee
By Steven Woodward – IFPUG – Director of Conferences and Education

The education committee had a successful conference September 2011 in historical Richmond, Virginia, with four workshops and 30 registrants. The education committee has several new initiatives in 2012, including collaborating with other technology clusters and encouraging more participation from academia. The new education committee chair, Joann Heck of SRA International, will bring her Project Management perspectives, to help establish new directions for ISMA workshops.

We look forward to seeing you at future ISMA workshops!
available. This standard is based on work originally developed and published by the International Software Benchmarking Standards Group (ISBSG) to whom the sub-working group remains grateful for their contribution and participation.

The next standard 29155-2 Processes of benchmarking is now under development by the drafting team of Pekka Forselius (Finland), and Jacky Takahashi (Japan) and Carol Dekkers (USA). An updated draft Committee Draft document will be available for review by interested IFPUG members (send an email to Carol Dekkers at dekkers@qualityplustech.com) in late 2011/early 2012.

**Feedback**

The conference attendees provided the ITPC with a lot of very good feedback about the SNAP APM, and we certainly welcome more feedback from all. The ITPC can be contacted via email at ITPC@ifpug.org. Initial planning for the next release of the SNAP APM has already begun. This next release will provide clarifications and additional definitions to better ensure consistent usage and enhance organizational value.

The ITPC wants to thank the project team involved in creating, editing and reviewing the initial release of the SNAP APM. This accelerated effort has only been possible because of hundreds of hours volunteered by measurement experts around the globe.

**The other things we do**

Other ITPC activities include:

- Representing IFPUG at the International Software Benchmarking Standards Group (ISBSG). As part of this group we are currently working on:
  - An ISO Standard for Benchmarking
  - Contributing projects to the Benchmark Database
  - Marketing ISBSG products to IFPUG members at a reduced price
  - Keeping ISBSG informed of SNAP progress and suggesting the addition of data elements required to benchmark Assessment results.

- Responding to Member inquiries:
  - Posted to the ITPC on the IFPUG bulletin board
  - Concerning ISBSG Products and Data Demographics

- Presenting courses on Benchmarking and SNAP at the annual Conferences

**IT Performance Committee**

*By Dan Bradley, Chair*

“The IT Performance committee’s goal is to provide services, based on a collection of software metrics data that assist IFPUG members to understand, plan, manage, and improve software engineering processes and practices.”

**First release of SNAP!**

The ITPC and the SNAP Team have released the first version of Software Non-functional Assessment Practices (SNAP) Assessment Practices Manual (APM). The manual was presented and officially made available at the Richmond ISMA Conference.

The SNAP APM allows organizations to capture the size of the non-functional (technical) requirements surrounding delivery of functionality to customers. The SNAP method complements the functional measures and enhances support of efforts to size, estimate and to manage application development. The ITPC conducted the first training in the SNAP method at the Richmond ISMA Conference and made two introductory presentations. The materials from these presentations should be available in the ITPC section of the IFPUG web-site soon. Due to the enthusiastic response to SNAP, we are planning more in depth coverage at future conferences.

IFPUG members may download the SNAP APM from www.ifpug.org and additional information on SNAP, documents and presentations from the ITPC section of the site.

**Feedback**

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**Management Reporting Committee**

*By Dawn Coley, Chair*

The mission of the Management Reporting Committee (MRC) is to promote and encourage the use of Function Point metrics in management reporting.

The MRC had a very busy summer working on the second IFPUG sponsored and edited book on IT Measurement. The manuscript was delivered to the publisher in late August and is it now being edited by the staff at the publisher: Taylor & Francis (CRC Press).

Here are some statistics:

<table>
<thead>
<tr>
<th>43 chapters</th>
<th>52 authors</th>
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<tbody>
<tr>
<td>12 sections</td>
<td>13 countries represented</td>
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In the volume, leading software measurement experts share their insight and expertise on topics such as measurement programs, function points in measurement, measurement and new technologies, and metrics analysis. The text is intended for IT project managers, process improvement specialists, measurement professionals, and business professionals interacting with IT. Topics addressed include cloud computing, agile development, quantitative project management, process improvement, measurement as a tool in accountability, measuring project ROI, metrics for the CIO, value stream mapping, and benchmarking. There are many real-life case studies detailed in several chapters.

Some of the book’s specific features include:

• Software measurement’s role in new technologies including cloud computing
• The impact of agile development on software measurement
• Measurement as a powerful tool for auditing and accountability
• Project ROI and value stream mapping
• Metrics for the CIO

The book is available for pre-order through outlets such as Amazon.com. We are certain it will become one of the most reached for assets in your software measurement library.

New Environments Committee

By Tammy Preuss, Chair

The New Environments Committee (NEC) has some changes and activities headed your way.

Member Priorities Survey

The NEC provided a survey to the attendees of the ISMA6 Conference in Richmond, Virginia asking which topics the membership would like to see addressed by NEC presentations or white papers. We plan to expand on this approach by creating a survey that will be sent out to all IFPUG members, via Survey Monkey, to determine needs, topics or other issues to address.

Hot Topics – Idea Sharing

The NEC is creating a process and schedule around quarterly presentations of hot topics of interest to IFPUG members. The process will involve the user community becoming more active participants in sharing information with IFPUG members. This new process is being developed to include a call for presenters similar to the annual IFPUG conference. This will allow more individuals to share their ideas during the year in a more informal teleconferencing environment. The presentations will be reviewed by the NEC and the timeliest topics will be chosen and scheduled. Look for this to start in early 2012. The NEC is also working with the Certification Committee to determine if these presentations will be eligible for Certification Extension Credits.

Special Interest Groups

Several Interest Group (IG) sessions were held at the at ISMA6 conference covering a variety of topics in software development, acquisition, management and support. The NEC is working to identify approaches by which the application of measurement can specifically support those objectives in the various IG areas. The NEC will be working to determine whether we will continue to sponsor the Interest Groups if there is enough interested and support of the members. If the decision is made to discontinue some or all of the interest groups they may become sub-committees or task groups within IFPUG. If you are interested in participation in an Interest Group or would like to create a new one, please contact us at NEC@ifpug.org.

NEC Committee Changes

There will also be a change in the committee members. With the election of the current chair, Debra Maschino to the IFPUG Board of Directors, the Vice-Chair, Tammy Preuss became the Chair on November 1st and Dan French became the Vice-Chair. We are adding at least one member at the present time that will be named at a future date.

Membership Committee

By Mauricio Aguiar

The International & Organizational Affairs Area and the Membership Committee are planning exciting activities for 2012. It is our intention to increase the IFPUG presence and visibility around the world in the upcoming year. We invite IFPUG members and associates from all countries to think about potential activities and events. You can count on our support if you plan to hold IFPUG Function Point events in your country. Please contact Mauricio Aguiar, Director of International & Organizational Affairs at mauricio@metricas.com.br if you would like to work with us.

We would also like to take this opportunity to thank our former International & Affairs Director Márcio Silveira, for several years of excellent service to IFPUG. Márcio will continue to be very active in the Brazilian software measurement community.
In Memoriam: Grant Rule - October 2011

We have recently lost a special and influential leader in the Software Metrics industry: Grant Rule.

Grant Rule was a unique and exceptional talent who was widely known in the Metrics Community. He read voraciously and was deeply knowledgeable about software engineering and always interested in the latest developments. He was associated with UKSMA from the early days, a member for several years of the IFPUG Counting Practices Committee and of the Editorial Board of ‘IEEE Software’, a Fellow of the British Computer Society and a fellow of the Royal Society for arts. He was a founder member of COSMIC, and a great contributor to the development and success of the method. In recent years he had become heavily involved in the Lean/Kanban and Agile communities.

Grant looked like he was made to sit astride a Harley-Davidson but he had nothing in common with a roughneck. He was a gentle and kind man. He never swore, which is remarkable in this macho age. He is the only person I know who began all his e-mails with ‘I trust all is well with you and yours’ - and he meant it! He wrote beautifully clear English and gave great presentations. Probably thousands of people have benefited from his insights over the years.

He was an authority on Roman history and for relaxation played and sang folk music with his family group, around local pubs and festivals. Being Grant he didn’t play just an ordinary guitar, he played the Appalachian dulcimer. He was very active in his local community and dabbled in archery. But he especially loved to go sailing in Devon. It is a terrible irony and so tragic that it was there he met his death.

We will miss him deeply and our thoughts go to his wife Sue and to his family.
Addressing Common “Boundary” Issues

by Ram Kumar

Abstract:
Most of us face challenges in identifying the boundary while counting a few types of applications or in a particular business scenario. If the decision of placing the boundary is not set appropriately, then huge variances in function point size will result.

An appropriate boundary is determined by the purpose of the count and the user view of the application(s). This article is an attempt to show some common sets of circumstances and how boundary issues were addressed by one organization.

The following different types of application and scenarios under actual usage have been analyzed to determine the boundary for counting the respective type of applications:
1. Large Enterprise applications (ERP kind of software)
2. Websites
3. N tier architecture based applications
4. Applications involving third party tools/softwares

Application Type 1: Large Enterprise applications
Applications which involve multiple functional Modules like Human resources, Procurement, inventory etc.

Let us understand the challenges involved while placing the boundary for ERP Applications:
– Whether to place the boundary at the functional module level or at the whole application level?
– How are the integrations with each functional module to be treated?
– How to consider the third party application interfacing with the application?

Suggested Approach and Guidelines
One approach is to consider each functional module of an ERP as individual applications.

Consider the following scenario and solution options:-

A typical organization may be using an ERP product for all its business processes, except for Human Resource management, for which they might use a different application. In this case, the ERP’s HRMS module is not configured for the customer; instead the ERP application interfaces with the third party HRMS application for all HRMS related transactions.

The IT service provider implements the ERP application and integrates with HRMS application as per the user requirements.

Option 1: Both ERP and HRMS applications are considered as a single “MIS” application

• There are no External interfaces in this scenario, since all belong to a single MIS application.

Option 2: The boundary is at the product level. ERP as one application and HRMS as the other

• Solid Arrows showing the interactions between HRMS application and other ERP functional modules are to be treated as “External interfaces”. The dotted arrows showing the interactions within the ERP functional modules cannot be treated as “External interfaces”.

Option 3: The individual modules are each treated as a different application. The boundary is at the module level.

• Arrows showing the interactions between each module are to be treated as “external Interfaces”.

Addressing Common “Boundary” Issues by Ram Kumar
Conclusion

From the above three options, option 3 - considering the individual modules as different applications – appears to match the user views of the application.

From the above example, we can understand that each of the functional module addresses requirements of a specific business process (specific user/business needs) and thus each functional module can be treated as an individual application.

Application Type 2: Website applications

Typical website applications allow the users to interact and see some information on specific services or products (e.g. users can register themselves, post queries etc.).

Let us understand the challenges involved when determining the boundary for Website applications:

- How do we consider the content management tool or Web admin tool, used to maintain the web page contents?
- How do we treat the third party application interfacing with the Website application?

Recommended Approach and Guidelines

When we do Function point analysis/counting of a website application, the boundary may encompass the “Content management or the web admin tool” which is used to maintain the contents and which is available to the end users. It largely depends on the purpose of the count – if we are looking at development and/or internal effort costs, then these facilities are irrelevant to our sizing. However, if we are interested in the total amount of capability supplied, this should not be the case - we should consider those transactions also to be part of the website application scope.

For example, consider a marketing website of a popular cosmetic brand company. The website will show the latest products available and product details. There may be a section to show current offers available on the product etc. All these are the contents which will be updated/maintained by the web administrator regularly (dynamic content), so that the end user can see the latest information.

Also, there will be scenarios related to the third party application. For example, in the marketing websites discussed above, there might be a need to show a demo video on the product to the website users. If we just provide a link to the external application which hosts the video, then it does not contribute to the FP counting. But, if the same video is embedded in the website through an interface, then it needs to be accounted as a function and may even include an EIF as applicable.

Conclusion

Care should be taken not to ignore the “Content Management” related transactions or the features of those tools which are essentially the heart of any website applications. Although it is not universal, in some cases these transactions are relevant to the purpose of the count.

Application Type 3: N-Tier architecture based applications

Typical applications which have various Tiers, such as Front End, Middle ware, back end etc.

Let us understand the challenges involved while placing the boundary for N-tier architecture based applications:

- Whether to place the boundary separately for each tier?

Recommended Approach and Guidelines

While counting function points for the multiple tier architecture based applications like the one shown above, we should not be carried away with the number of technical components involved. We should be clear and apply the user view for this scenario.

Typically, the user may create his profile through the portal - one transaction.
Here in this application, there may be different technical components involved in the data transfer from front end through middle ware (which validates the information using some business rules engine) and finally updates the backend (Database) with the user profile. Irrespective of all these, from the user perspective and applying the relevant IFPUG CPM 4.3.1 rules, this will contribute to only one EI.

Occasional misconception in the multiple tier architecture scenarios:-

- Considering each tier as a different application (i.e. failing to understand the logical user view) will lead to double counting of ILFs/EIs/EOs/EQs. Counters may try to justify this approach by indicating that users are aware of the multiple tier architecture and hence the data traversal from front end to middle ware (where the Business rules engine validates the data) and then to finally update the database. However, these processes simply represent the physical approach applied to the implementation of the function and provide no additional end user capability.

**Conclusion**

Do not get carried away by the multiple tier architecture. The IFPUG CPM 4.3.1 rules remain the same for the application. The data traversing end to end (through all tiers) will be considered as one single applicable transaction.

Application Type 4: Applications involving third party tools/soft wares

Here we discuss applications which use third party tools for handling some business functionality. Some examples are:-

- A Content management tool used for a UI based application.
- A report configurator tool used in an application, which enables the users to enter control information and generate reports themselves.

Let us understand the challenges involved while placing the boundary for these kinds of applications:

- How to consider the third party tools used and the corresponding transactions involved?

When we count function points for the above kind of application, we should include the data functions and transaction functions related to the third-party tool also within the scope of the application. In the previous examples, we have already discussed the usage of a content management tool in the “Application type-2” scenario.

Let us consider the report configurator example:-

The tool takes inputs from the end users, on what are the data elements that should be retrieved in a tabular format report. The End user gives a report name and specifies the data elements (Columns) to be retrieved in the report. Also, the user is allowed to specify the mode in which the report needs to be generated (on screen or hard copy print). This transaction - saving the report names, the data elements and the mode - needs to be accounted for as a control EI. Similarly the corresponding ILF needs to be included.

**Conclusion**

Care should be taken not to ignore the third party tools/soft ware which are being used as a critical part of the application. These tools/soft ware need to be considered within the boundary of the application being counted.

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**About the Author**

Ram has over 10 years of experience in software development and project management. He has held numerous technical and managerial positions and is the estimation expert serving the competitive deal and sales support team at Accenture. He holds a Masters degree in Business Administration and can be reached at ramkumar.venkat@accenture.com.
David Consulting Group

Pennsylvania, USA

DCG is an international software development consulting firm helping companies frustrated with development costs, hampered by poor quality or struggling to estimate and achieve on-time delivery. We have successfully helped global organizations and their partners to make timely, effective changes to results and culture.

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- **Software Sizing** - using IFPUG Function point Counting and alternative sizing techniques.
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- **IT Performance Improvement** – improve IT operations through ITIL and IT Governance.

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- Joanna Soles, WellPoint
- Linda Ye, Bank of Montreal

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- Mary Bradley, MSB2

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- Joanna Soles, WellPoint

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- Linda Hughes, Accenture – Vice Chair
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**SAVE THE DATE!**

**ISMA 7 Phoenix, Arizona**
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IFPUG BOARD OF DIRECTORS UPDATE

IFPUG extends their deepest appreciation and thanks to the following out-going Board of Directors for their dedication and support during their many years of service.

Thomas Cagley  
Chris Kohnz  
Márcio Silveira  

Parting words from Márcio Silveira

After 6 year’s I am leaving the IFPUG Board of Directors. It was a great experience to deal with so skilled people and had the opportunity to participate in several initiatives. It was a time of great challenges for IFPUG but working as a team we were able to move forward and create a stronger organization. I had the opportunity to deal with so many people during the board meetings, conferences, e-mails, etc. They certainly contributed to enhance my knowledge and my career, if I thanked someone in specific I would be unfair because all of them gave me for free their wisdom.

Now it is time for other people to have the same great experience that I had and I am happy for that.

Warm Regards,  
Márcio Silveira

Welcome to the newly elected Board members!

Christine Green

Christine is the new Director of Applied Programs for IFPUG and brings years of experience with sizing and an international view to the board. She believes that it is important to develop IFPUG into a more internationally recognized and respected organization with focus on being the independent body for sizing, estimating and measurement within the Software industry. She is dedicated to working to increase the focus on sharing, promoting and working together within the membership to improve the organization’s ability to improve processes within Software Measurement.

For the last three years Christine’s IFPUG work has been focused on developing the IFPUG Software Non-Functional Assessment Process (SNAP). While Christine was primarily responsible as the Project Manager for the project, she also promoted the utilization of volunteers from around the globe to ensure input from a many different stakeholders.

Lori Holmes

Lori is the new Director of Counting Standards for IFPUG. Lori has been involved with IFPUG since 1989 as a workshop instructor and presenter at the ISMA conferences and she contributed to the IFPUG book IT Measurement – Practical Advice from the Experts. Lori served on the Academic Affairs committee focusing on introducing FPs to universities. She has participated with the IT Performance Committee (ITPC) on the Technical Sizing Project resulting in the development of the Software Non-functional Assessment Process (SNAP). Lori has been a Certified Function Point Specialist since its initial offering.

As part of the Board, she will be an advocate to ensure FPs will sensibly evolve to meet the changing needs of our industry and remain a valued and useful measurement tool. As a board member she hopes to reestablish IFPUG visibility in the industry, increase involvement of members as well as increasing benefits to members. Lori looks forward to being a part of the board to address these efforts as well as any other activities that will help promote IFPUG’s success.

Debra Maschino

As the new IFPUG Secretary and Director of the Communication and Marketing Committee, her goals are to improve the IFPUG website and increase visibility to the activities and materials that are produced and supported by the other committees and groups within IFPUG-ISMA. She is also striving to reduce redundancy and increase efficiency amongst the committees within IFPUG.

Debra has over 30 years of experience in Information Technology. She specializes in software measurement, project management, systems development methodologies, and software process improvement. She has extensive experience in function point analysis and setting up function point programs, software project estimating, metrics analysis, dashboard creation and implementing measurement programs for large organizations. A Certified Function Point Specialist since 1994, she received her PMP certification in September 2005 and CSMS certification in 2008. Debra has been involved with IFPUG since January 2004, as a member of the New Environments Committee and attended many conferences.
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**IT Measurement: Practical Advice from the Experts (2002)**
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**Guidelines to Software Measurement, Release 2.0**
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**ISBSG Benchmark Release 10 Project Planning Edition** (March 2008) In this release provides the following analyses to assist with project planning.

- The breakdown of effort by project phase
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- Web projects compared to non web projects
- The impact of re-use in projects

Please note that the first four of the analyses listed above have been previously released as Special Reports.

**ISBSG Benchmark Release 8: Software Defect & Quality Edition**

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| 2006 1st Annual ISMA Conference – San Diego, CA | $50  | $100 |
| 2007 2nd Annual ISMA Conference – Las Vegas, NV | $50  | $100 |
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- Sizing Component Based Development using Function Points
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  $10  $20

- Function Points & Counting Middleware Software Applications (PDF – 165 KB)
  Released July, 2009 by the New Environments Committee
  $10  $20

- Hints to GUI (PDF – 329 KB)
  Released February, 2008 by the New Environments Committee
  $10  $20

- Hints to Counting Enterprise Data Warehouses (PDF – 214 KB)
  Released July, 2007 by the New Environments Committee
  $10  $20

- Hints to Counting Client/Server Applications
  Released July, 2004 by the New Environments Committee
  $10  $20

- Hints to Counting Third Party Software
  Released August, 2004 by the New Environments Committee
  $10  $20

- NEC “Using Function Points to Measure Reusable Software” (Portuguese)
  $10  $20

- NEC “Using Function Points to Measure Reusable Software” (English)
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May the New Year bring Peace and Prosperity.

From the IFPUG Board of Directors and Headquarters Staff